

WHAT IS CLAIMED IS:

- 1 1. Apparatus comprising:
 - 2 a substrate;
 - 3 a ground plane on the substrate, the ground plane having
 - 4 a slot;
 - 5 transmission lines lying over the slot; and
 - 6 data processing agents each connected to one of the
 - 7 transmission lines.

- 1 2. The apparatus of claim 1 in which the slot is terminated.

- 1 3. The apparatus of claim 1 in which the transmission lines
2 are terminated.

- 1 4. The apparatus of claim 1 in which the slot functions as a
2 main bus trunk when excited.

- 1 5. The apparatus of claim 1 in which the data processing
2 agents comprise processors.

- 1 6. The apparatus of claim 1 in which the data processing
2 agents comprise chipsets.

- 1 7. The apparatus of claim 1 in which the transmission lines
2 lie perpendicular to the slot.

- 1 8. The apparatus of claim 1 in which the data processing
2 agents comprise signaling circuitry.

1 9. A method comprising:

2 inducing a transient return current on a reference plane
3 in response to a driving agent sourcing a current onto a first
4 transmission line, the current being representative of binary
5 data;

6 propagating energy of the transient return current to a
7 slot in the reference plane;

8 inducing a transient voltage pulse onto a second

9 transmission line connected to a receiving agent when the
10 propagating energy encounters the second transmission line;
11 and

12 generating a binary digital signal in the receiving agent
13 from the transient voltage pulse received on the second
14 transmission line.

1 10. A method comprising:

2 in a bus, sourcing a current being representative of
3 binary data on to a first line;

4 inducing a return current on a reference plane; and

5 transferring energy of the return current to a slot in
6 the reference plane.

1 11. The method of claim 10 further comprising:

2 inducing a voltage pulse on to a second transmission line
3 from the energy in the slot; and

4 generating a binary digital signal in a receiving agent
5 from the voltage pulse.

1 12. The method of claim 10 in which sourcing is generated by
2 a driving agent.

1 13. The method of claim 12 in which the driving agent is a
2 processor.

1 14. The method of claim 11 in which the receiving agent is a
2 processor.

1 15. Apparatus comprising:

2 a substrate;

3 a ground plane on the substrate, the ground plane having
4 a slot;

5 parallel arranged transmission lines lying over the slot;

6 and

7 data processing agents each connected to one of the
8 parallel arranged transmission lines.

1 16. The apparatus of claim 15 in which the slot is
2 terminated.

1 17. The apparatus of claim 15 in which the parallel
2 transmission lines are terminated.

1 18. The apparatus of claim 15 in which the slot functions as
2 a main bus trunk when excited.

1 19. The apparatus of claim 15 in which the data processing
2 agents comprise processors.

1 20. The apparatus of claim 15 in which the data processing
2 agents comprise chipsets.

3 21. The apparatus of claim 15 in which the data processing
4 agents comprise signaling circuitry.